

Science Collaborative CIU Meeting #6

March 21st, 2012 9 a.m. – 11:30 a.m.

Present

City of Homer: Bryan Hawkins (Harbormaster), Jim Hornaday (Mayor, KBRR Community Council)
DNR: Rick Thompson (Regional Land Manager)
ADF&G: Ginny Litchfield (Habitat Resource Mngr)
KBRR Community Council: Bob Hartley
KBRR Staff: Steve Baird, Angie Doroff, Megan Murphy, Terry Thompson, Jessica Ryan
NOAA: Kris Holderied (Kasitsna Bay Lab Manager), Dominic Hondolero
KP Borough: Tom Dearlove (Coastal Program/Resource Mngr), Dan Bevington (Floodplain/Resource Mngr)
Seldovia Village Tribe: Michael Opheim (by phone)
University of AK Fairbanks: Jeff Freymueller
University of AK Anchorage: Orson Smith (coastal processes / sediment transport expert)

Absent

City of Homer: Rick Abboud (Planning), Walt Wrede (City Manager)

AGENDA & NOTES

1. Intros, Frame purpose of meeting
2. Discussion on user matrix (Michael Opheim's presentation postponed until the Sept mtg!)
3. Discussion on sediment transport questions / possibilities
4. Update on uplift data collection / accessibility
5. Evaluation of process / meeting
6. **The June 6th, 2012 meeting canceled!! The next mtg will be Wednesday, September 19th → Megan will follow up with folks in between to identify formats for useful data display**

Framing Where We're At in the Collaborative Learning Process:

- December 7th, 2011 mtg was used to discuss the surfacing themes from the year's meetings:
 - o Identified additional users of the data
 - o Familiarity with / trust in the scientific process
 - o Mismatches in conducted research & information needs in management
 - o Misalignment in the timeframes of data collection & informed decision-making
 - o Techniques to proactively address/minimize political conflict w/ data delivery?
- This meeting provided an opportunity to further identify add'l information needed to make the results of this study most applicable to the users' needs

Additional offshoots of this particular collaborative process:

- In the December 7, 2011 meeting, coastal erosion & sediment transport questions came to the surface as an immediate need to improve decision making → asked Orson Smith to participate in the meeting to provide input to the discussion on what a sediment transport study would require for this area, what information could be gained
- CTP FY13 priority for KBRR GIS specialist, Steve Baird, to update coastal erosion rates around Homer coastline
- 'Permitting 101 training' discussions with Borough and Rick Thompson → improve the process of inter and intra-agency communication, improving the efficiency/effectiveness of communicating with permittees.
- Expanding partnership opportunities!

Miscellaneous discussion points / questions:

1. Important for resource managers to know who to contact to access information & to track what is available as is pertinent to their job
2. Resource managers need to be able to back up their decisions with scientific results – to be held up in the legal process, if necessary
3. Is there a funding process for the undertaking the collaborative process outside of this grant?

4. An existing conundrum between local vs scientific knowledge

DISCUSSION on the user matrix (see ppt):

- ADF&G – difficult to know what add'l information you need until you're faced with a questions (case by case basis for permits?)
 - o However, **a map of the habitat overlayed with biological information** would be very helpful (ex: looking at areas/rates of uplift in the next 20-50 years and identifying the pacific littleneck habitat on top of this forecasted change)
- NOAA – reinforced the desire for the ability to forecast forward different species-specific scenarios overlayed on the land level / habitat changes that could be happening in the next 20,50, 100 yrs
- AK DNR – information from this study will help inform land ownership. State surveyors office can directly use the results of this study.
- SVT – are there varying rates of uplift within and around Seldovia?
 - o How is larval transport affected?
 - o How might sedimentation on beaches & streams be different? → **also supported the utility of a map overlayed with biological information**
- Borough – it's important that the results of this study are in a format that is readily translatable to the public (their audience)
 - o Additionally want to know how the hazards of velocity zones might change in floodplains
 - o Has application for updating codes / ordinances
 - o → profile of bathymetry is important to know due to the wind-driven nature of velocity zones
- City of Homer Harbor – forecasting dredging costs & maintenance, managing materials that are dredged, management of the Spit

DISCUSSION ON SEDIMENT TRANSPORT w/ Orson Smith (see ppt slides)

- Spatial extent of the littoral cell (area of sediment that is being transported to the Spit) runs from Anchor Point to the tip of the Homer Spit
- There is also sediment that comes from the inner bay / fox river flats, but it is unknown what the sediment inputs are to the Spit
- Add'l unknown is the erosion input from cliffs and rates of input
- About 13,000-15,000 yd³ of sediment are dredged from the harbor on an annual basis
- Sediment transport is dominated by wave action – supported by wind & water level
- Wave & storm frequency/intensity are also important
- If the angle of the beach / coast remains the same with vertical uplift, the sediment transport rate would be unaffected by vertical uplift.
- There are lots of existing & soon-to-be data sets that could readily be incorporated into a sediment transport modeling study of the Anchor Pt – Homer Spit littoral cell.
- Orson estimated that a sediment transport study could be done in a couple years for ~ \$100K (some # of \$xxxK's) → sounds like an AWESOME graduate student project!!!
- Orson shared images of the 1985 Army Corps of Eng. Sediment transport results of the Homer Spit → would be interesting to compare how the results would compare with present-day and future conditions

DATA UPDATES – see Jeff Freymueller's ppt

- FIVE GPS sites for this study have been installed!!!! Homer Public Works, McNeil Canyon School, Homer Spit, Coowe Walker's residence nr Fox River Flats, Peterson Bay
- You can access the data at:
 - o UAF: <ftp://gps.alaska.edu/pub/gpsdata/permanent/YYYY/ddd/>
 - o UNAVCO: <ftp://data-out.unavco.org/pub/rinex/obs/YYYY/ddd/>
 - o UNAVCO: <http://facility.unavco.org/data/dai2/app/dai2.html>